



ROLES & RESPONSIBILITIES

Protecting resources through knowledge and action

MODERN STORMWATER CONTROLS

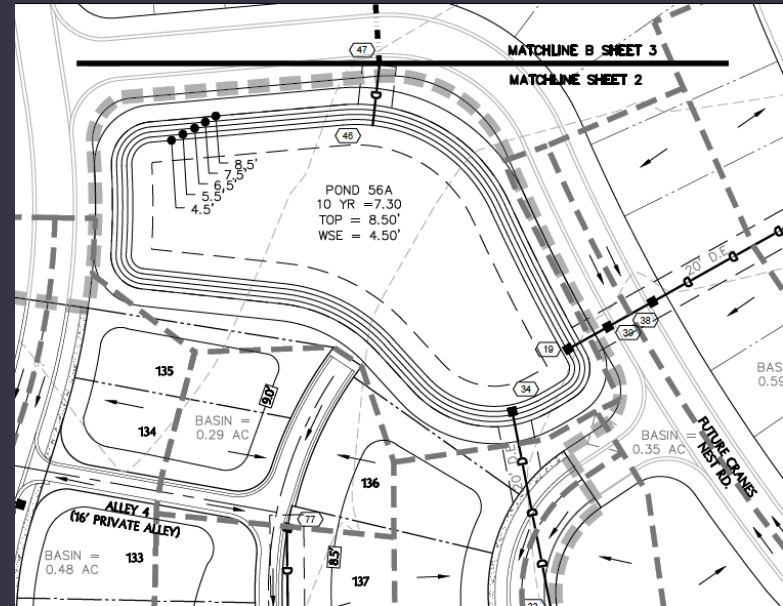
- *Current Regulations Require the management of additional run-off water from new and re-development projects during construction and post- construction (in perpetuity).*

- Wet Ponds
- Dry Ponds
- Constructed Wetlands
- Underground Storage
- Low Impact Development (LID)



ROLES - DEVELOPERS

- Submit plans to meet requirements
- Build the pond according to Plan
- Certify conformance to plans
- Provide as-built
- Provide maintenance schedule/agreement
- Turn over system and maintenance to HOA or future Property Owner



ROLES – POND OWNERS

HOA/ PROPERTY OWNER

- Maintain the Pond
 - Funding
 - Maintenance Plan
- Correct deficiencies
- Provide upgrades as needed?



ROLES – POND MANAGEMENT COMPANIES

- Inspect
- Provide guidance
- Provide assistance



ROLES – MS4

(TOWN, CITY, COUNTY)

- Review plans
- Inspect site
- Review As-built
- Confirm stabilization
- Close Permit
- Ensure Owner performs maintenance
- Inspect system to confirm maintenance
- Require corrective measures if needed

- PROTECT THE DOWNSTREAM WATERWAYS FROM LAND BASED POLLUTION



ROLES – STATE AND FEDERAL

STATE (SCDHEC)

- Provide Minimum Standards
- Approve Land Disturbance Permits
- Water Quality Protection of State Waters
- Enforce Compliance

FEDERAL (EPA)

- Regulate Water Quality
 - State
 - Local



JURISDICTIONAL CHALLENGES

Every
system is
different...

But the
same

- Ownership
 - Individual Owners
 - Group owners
 - HOAs
- Defined Maintenance?
- Measurable Performance?
 - Aesthetics
 - Pollution
 - Flooding
- Inspection Resources
- Compliance Actions/ Enforcement

RESPONSIBILITIES – OWNERS

2. Pond(s) and/or Detention Basin(s)

a. During construction (until final acceptance by the Engineer):

i. The Contractor shall be responsible for all maintenance including but not necessarily limited to:

- (1) Removing accumulated sediment.
- (2) Maintaining pond banks including prevention and repair of slope erosion.
- (3) Establishing and maintaining temporary and permanent stabilization (landscaping and/or grass as indicated on the plans).

b. After construction:

i. The Owner or his Assigns shall be responsible for perpetual maintenance including but not necessarily limited to:

- (1) Bi-weekly:
 - (a) Aesthetic maintenance of the banks and surrounding common areas including mowing, landscape maintenance, and removal of trash and debris.
- (2) Every 6 months:
 - (a) Inspection of the pond(s) and associated outlet structure(s).
 - (b) Removal of any blockages and accumulated debris at the outlet structure(s).
 - (c) Repair and stabilization of any bank erosion.
 - (d) Repair or replacement of any damage to the outlet structure(s).
- (3) Every 12 months:
 - (a) Treatment, as necessary, for aquatic weed control.
- (4) Every 5 years:
 - (a) Removal and proper disposal of accumulated sediment.



RESPONSIBILITIES – MS4

4.2.5.4 Long-Term Maintenance of Post-Construction Stormwater Control Measures

- 4.2.5.4.1 All structural stormwater control measures installed and implemented to meet the performance standards of Part 4.2.5.2 must be maintained in perpetuity. Permittees must ensure the long-term maintenance of structural stormwater control measures installed
- 4.2.5.4.2 **Verification of maintenance responsibilities.** Permittees must require that property owners or operators of any new development or redeveloped site subject to the performance standards in Part 4.2.5.2 provide verification of maintenance for the approved structural stormwater control

RESPONSIBILITIES –MS4

4.2.5.6 Inspections and Enforcement

4.2.5.6.1 **Inspection Frequency.** To ensure that all stormwater control measures are operating correctly and are being maintained as required consistent with its applicable maintenance agreement, Permittees must conduct inspections of each project site covered under Part 4.2.5.2 performance standards, *at least one time during the permit term*. A description of inspection procedures must be included in the SWMP document.

4.2.5.6.3 **Inspection Reports.** Permittee must document its inspection findings in an inspection report.

Permittees must document and maintain records of inspection findings and enforcement actions and make them available for review by the permitting authority.

RESPONSIBILITIES POND COMPANIES

Inspect
Report
Decisions
Actions

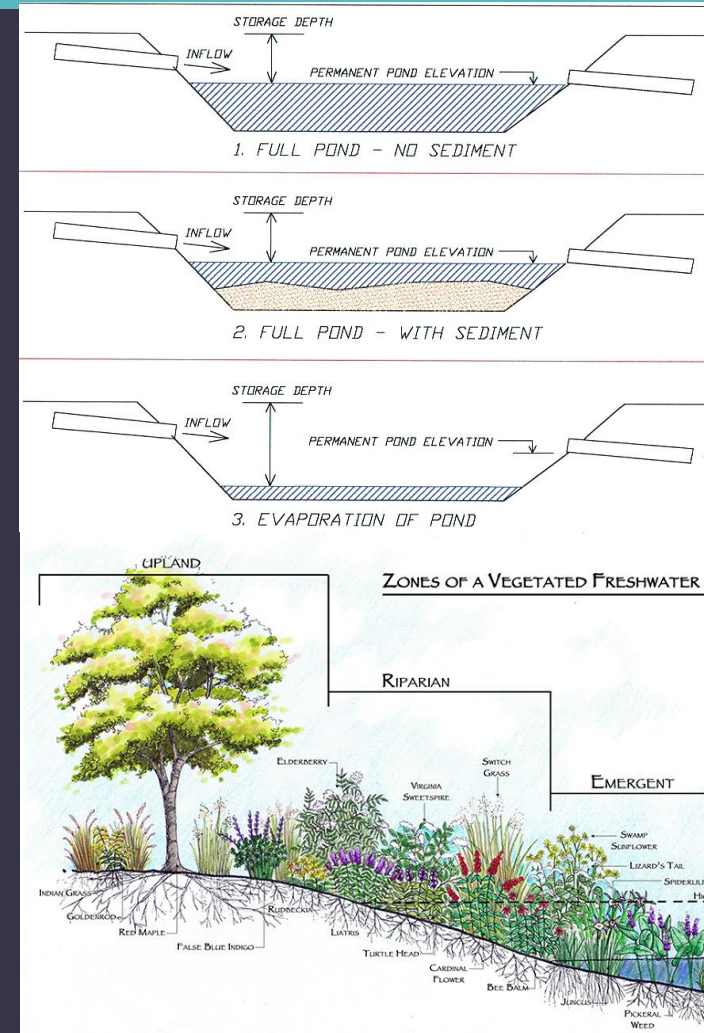
SPECIAL INTERESTS & COMMUNITY

- Fishable
- Swimmable
- Drinkable
- Reasonable
- Affordable
- Effective



STORMWATER CONTROL FUNCTIONS

- Flood Control
- Protect downstream properties from flooding
- Water Quality
- Protect waterways (creeks) from pollution



SOUTH CAROLINA REGULATIONS

1991 FORWARD

Under the South Carolina Stormwater Management and Sediment Reduction Act of 1991 (48-14-10, et. seq.), Regulation 72-308 requires the Landowner, its successors and assigns, including any homeowners association, shall adequately maintain the stormwater management/Best Management Practices (BMP) facilities. This includes all pipes and channels built to convey stormwater to the facility, as well as all structures, improvements, and vegetation provided to control the quantity and quality of the stormwater. Adequate maintenance is herein defined as good working condition so that these facilities are performing their design functions.

The Landowner, its successors and assigns, will perform the work necessary to keep these facilities in good working order as appropriate. In the event a maintenance schedule for the stormwater management/BMP facilities (including sediment removal) is outlined on the approved plans, the schedule will be followed.

I accept responsibility for ownership and proper maintenance of the stormwater system (pond, swales, etc.) on the _____ site per the approved maintenance plan. I will complete any necessary repairs and/or preventive maintenance procedures in a timely manner to ensure proper functioning as a stormwater management device(s).

It is my understanding that the maintenance plan may be amended/revised at any time by DHEC/OCRM, and I will abide by any prescribed changes.

I will continue to own and maintain the pond until DHEC/OCRM is notified in writing of a transfer in ownership and maintenance responsibility. The notification will include a date for the transfer of responsibility and a letter of acceptance from the new owner.

I understand that failure to adhere to the signed maintenance agreement may result in fines of up to \$1,000.00 per day, per violation and /or the institution of a court action.

Signature of Owner/Agent

Printed Name of Owner/Agent

Date

Mailing Address

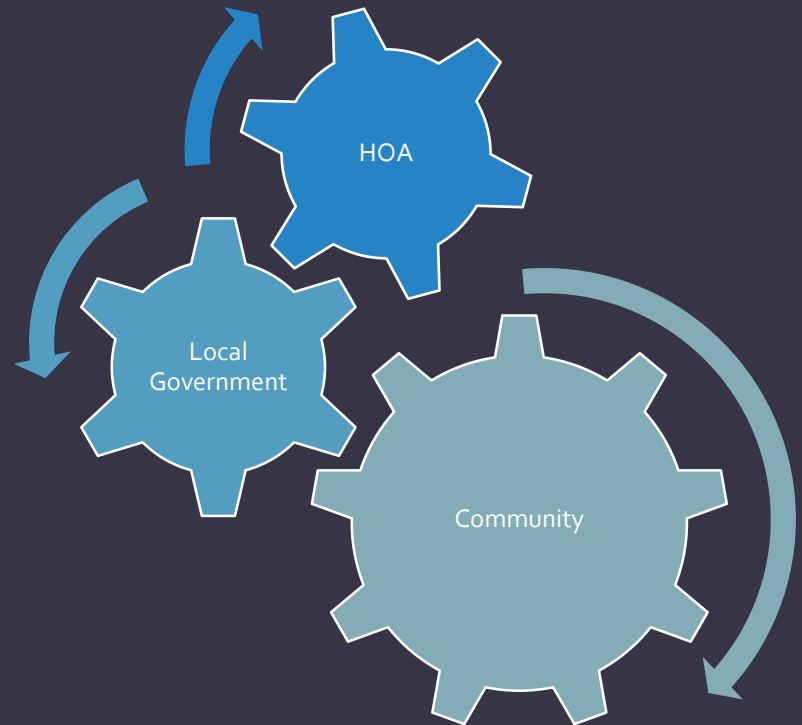
City/State/Zip

Phone Number

Notary Stamp/Signature/Date

PARTNERSHIPS

- Educate the need - Owners may not be aware of responsibilities
- Take action - Owners do not always have resources
- Accept the responsibility - Community needs everyone to participate



CONCLUSION



- Ponds will continue to be used for stormwater control
- New technology will be used in addition to ponds
- Short term maintenance actions and long range planning can help keep cost manageable.
- Increasing Age = Increasing \$ to maintain/ replace
- Pond maintenance is needed to protect water quality and create healthy communities